



**4910-EX-P**

**DEPARTMENT OF TRANSPORTATION**

**Federal Motor Carrier Safety Administration**

**[Docket No. FMCSA-2018-0189]**

**Agency Information Collection Activities; Approval of a New Information**

**Collection Request: Truck and Bus Maintenance Requirements and Their Impact on Safety**

**AGENCY:** Federal Motor Carrier Safety Administration (FMCSA), DOT.

**ACTION:** Notice and request for comments.

**SUMMARY:** In accordance with the Paperwork Reduction Act of 1995, FMCSA announces its plan to submit the Information Collection Request (ICR) described below to the Office of Management and Budget (OMB) for its review and approval and invites public comment. This new request titled “Truck and Bus Maintenance Requirements and Their Impact on Safety” will allow for a study that focuses on vehicle maintenance and aims to determine the impact of vehicle maintenance requirements on overall motor carrier safety. This information collection supports the DOT Strategic Goal of Safety.

**DATES:** Please send your comments by **[Insert date 30 days after the date of publication of this notice in the Federal Register]**. OMB must receive your comments by this date in order to act quickly on the ICR.

**ADDRESSES:** All comments should reference Federal Docket Management System (FDMS) Docket Number FMCSA-2018-0189. Interested persons are invited to submit written comments on the proposed information collection to the Office of Information

and Regulatory Affairs, Office of Management and Budget. Comments should be addressed to the attention of the Desk Officer, Department of Transportation/Federal Motor Carrier Safety Administration, and sent via electronic mail to [oir\\_submission@omb.eop.gov](mailto:oir_submission@omb.eop.gov), or faxed to (202) 395-6974, or mailed to the Office of Information and Regulatory Affairs, Office of Management and Budget, Docket Library, Room 10102, 725 17<sup>th</sup> Street, N.W., Washington, DC 20503.

**FOR FURTHER INFORMATION CONTACT:** Quon Y. Kwan, Program Manager, Technology Division, Department of Transportation, Federal Motor Carrier Safety Administration, 6<sup>th</sup> Floor, West Building, 1200 New Jersey Avenue, SE., Washington, DC 20590-0001. Telephone: 202-385-2389; E-mail Address: [quon.kwan@dot.gov](mailto:quon.kwan@dot.gov). Office hours are from 9 a.m. to 5 p.m., Monday through Friday, except Federal Holidays.

**SUPPLEMENTARY INFORMATION:**

*Title:* Truck and Bus Maintenance Requirements and Their Impact on Safety.

*OMB Control Number:* 2126-00XX.

*Type of Request:* New information collection.

*Respondents:* Freight motor carriers and passenger carriers.

*Estimated Number of Respondents:* 578 respondents will complete the Online Recruitment Survey. Of those 578 respondents, 289 will also complete the Carrier Maintenance Manager Survey.

*Estimated Time per Response:* Varies [Online Recruitment Survey: 5 minutes. Carrier Maintenance Manager Survey: 45 minutes].

*Expiration Date:* Three years after approval.

*Frequency of Response:* Once.

*Estimated Total Annual Burden:* 265 hours [Online Recruitment Survey: 578

respondents  $\times$  (5 minutes  $\div$  60 minutes) = 48 hours; Carrier Maintenance Manager

Survey: 289 respondents  $\times$  (45 minutes  $\div$  60 minutes) = 217 hours].

*Background:*

*Background:* FMCSA's core mission is to reduce crashes, injuries, and fatalities involving large trucks and buses. To aid in accomplishing this, the Agency uses the Compliance, Safety, Accountability (CSA) enforcement program to prioritize and target interventions of those motor carriers who are most likely to be involved in a future crash. As part of the CSA program, the Agency deploys the Safety Measurement System (SMS). SMS uses inspection, crash, and investigation data captured in the Motor Carrier Management Information System (MCMIS) to calculate a percentile for each motor carrier. A motor carrier's SMS percentile is based on its past compliance with a complete range of safety-based regulations (such as driver safety, hours of service, driver fitness, and vehicle maintenance, among others). The survey described in this notice focuses on the vehicle maintenance component of those safety regulations. The goal of the study is to determine what improvements, ranging from better compliance interventions to better vehicle maintenance requirements, would enhance motor carrier safety.

In 2014, the John A. Volpe National Transportation Systems Center (Volpe) conducted a study to assess the effectiveness of SMS in identifying the highest risk motor carriers to be targeted for interventions. One finding from the study was that motor carriers targeted for intervention due to "vehicle maintenance" issues (i.e., violations) had a 65 percent higher crash rate compared to the national average. These violations are based on Federal and State inspections of components critical to the safe operation of the

vehicle. It is important to recognize that proper and regular preventative maintenance (i.e., systematic maintenance programs) among carriers—rather than Federal and State inspections, which are by nature limited to the most visible or obvious safety-related components—should be the primary activity applied to ensure safe equipment operation.

While these initial findings are important, they raise additional questions. One such question is prompted by the stipulation in 49 CFR 396.3(a), which states that every carrier must have a program to “systematically inspect, repair, and maintain, or cause to be systematically inspected, repaired, and maintained, all motor vehicles and intermodal equipment subject to its control.” Though this regulation provides some direction, there is no supporting definition of the word “systematic,” and because this term is subjective, it is likely to vary from one carrier to another. The lack of specificity regarding standard intervals for preventative maintenance makes it difficult for Federal and State personnel to evaluate the effectiveness of and compliance with a carrier’s maintenance program. Furthermore, the lack of specificity may make it difficult for carriers to ascertain and therefore comply with the regulation’s intent.

The current research effort, augmented by the proposed survey, is necessary to improve FMCSA’s understanding of the safety impact of preventative vehicle maintenance and to clarify the requirements of section 396.3(a). The study objectives are as follows:

1. Develop an operational definition of “systematic maintenance.”
2. Evaluate whether current regulations and the intervention process could be modified to improve compliance with vehicle maintenance requirements.

Examples of such requirements include: (i) preventative maintenance intervals,

- (ii) preventative maintenance inspections with adequately trained/equipped mechanics, and (iii) adequacy of motor carriers' maintenance facilities. [However, the results of the survey will be used only to explore what areas of rulemaking and/or other areas, such as policy guidance and training, might be useful in the future; the results of the survey will not be used for rulemaking, per se.]
3. Gather information to assist in establishing minimum standards for inspection intervals, mechanic qualifications and training, and certification of maintenance facilities.

FMCSA is authorized to conduct this research under 49 U.S.C. 31108, Motor Carrier Research and Technology Program. Under section 31108(a)(3)(C), FMCSA may fund research, development, and technology projects that improve the safety and efficiency of commercial motor vehicle operations through technological innovation and improvement. This information collection supports the U.S. Department of Transportation (USDOT) strategic goal of Safety.

Under contract to FMCSA, the Virginia Tech Transportation Institute (VTTI) at the Virginia Polytechnic Institute and State University (VT) will use online surveys to obtain the data required to address the study objectives. The information collection will be administered in two phases:

Phase I: Online Recruitment Survey. This voluntary, seven-question survey will screen carriers and verify their eligibility for Phase II participation. To be eligible for Phase II participation, carriers must fall into one of two groups: (a) the Recommended Practices (RP) Group, which includes carriers with the lowest Vehicle Maintenance and Crash Indicator Behavior Analysis and Safety Improvement Categories (BASIC)

percentiles (i.e., less than or equal to the 33rd percentile); or (b) the Intervention Effects (IE) Group, which includes carriers that have experienced Federal or State interventions in the last 24 months due to vehicle maintenance violations. The BASICs are Unsafe Driving, Crash Indicator, Hours-of-Service (HOS) Compliance, Vehicle Maintenance, Controlled Substances/Alcohol, Hazardous Materials (HM) Compliance, and Driver Fitness. More information on the SMS methodology can be found at <https://csa.fmcsa.dot.gov/Documents/SMSMethodology.pdf>.

Phase II: Carrier Maintenance Management Survey. This voluntary, 106-question survey will include questions about demographics; maintenance practices, intervals, personnel, and facilities; and State and Federal inspections, among other things. The Phase II survey will employ branch logic; as such, carriers will be prompted to complete different sections based on their survey group (and for one section, carrier size). Consequently, no participating carrier will be asked to complete all 106 questions.

In the Phase II survey, carriers (of all sizes) in the RP Group will be asked to provide additional information about maintenance personnel and facilities (e.g., mechanic training levels, tools required for adequate inspection, and certification of facilities) and vehicle maintenance issues that may impact safety. Information from the RP Group will seek to address Objective 1, relating to development of an operational definition of “systematic maintenance,” Objective 2, and Objective 3, relating to establishment of minimum standards for inspection intervals, mechanic qualifications and training, and certification of maintenance facilities.

Carriers in the IE Group will be asked to complete the section on intervention effects, which includes questions about the status of active interventions or

investigations; results of closed interventions or investigations; interactions with State versus Federal agencies; intervention activities experienced; the accuracy of violations leading to interventions; actions taken in response to interventions; changes in carrier vehicle maintenance practices as a result of an intervention; significant benefits of interventions; and ways the intervention process could be improved. Information provided by the IE Group will address the portion of Objective 2 regarding sufficiency of regulations and where interventions need to be improved to facilitate complying with these regulations.

Survey responses will be summarized and reported using plots, tables, content analysis, and calculated summary statistics. Plots and tables will provide a visual comparison of multiple choice and checkbox survey responses for successful carriers (i.e., carriers in the RP Group) and those receiving interventions in the last 24 months (i.e., carriers in the IE Group). These methods will also allow researchers to summarize responses by carrier operation type (i.e., truck or bus) and size. Bar charts will be used to plot responses to many survey questions. Some survey responses may be summarized with tables with rows for each of the carrier operation types (truck or bus) and each carrier-size subgroup. To explore and summarize responses to open-ended survey questions, researchers will use content analysis methods. An illustration of an open-ended question in the survey is “List examples of critical safety-related maintenance activities for trailer vehicle milestones.” The goal of content analysis of open-ended questions will be to identify common answers.

The results of this information collection will be documented in a technical report to be delivered to and published by FMCSA. In addition, the results will be used to create

a “recommended best practices” report that will outline minimum standards for inspection intervals, mechanic qualifications and training, and certification of maintenance facilities. Finally, VTTI is required under the contract with FMCSA to compile and analyze the collected information and develop a public-use data set.

This ICR is for a one-time data collection. If this data collection does not take place, the truck and bus industry will continue to operate with the uncertainty of what constitutes a “systematic maintenance” program, as currently worded in section 396.3(a). This term's ambiguous definition makes it difficult for Federal and State inspectors to evaluate the effectiveness of a carrier's maintenance program or its compliance with this provision. Furthermore, this uncertainty may make it difficult for carriers to ascertain and therefore comply with the regulation's intent.

On July 16, 2018, FMCSA published a 60-day Federal Register notice (83 FR 32950). The Agency received four comments. One anonymous comment was unrelated to the ICR. Both the American Bus Association and the American Trucking Associations voiced support for the ICR in their comment letters. The National School Transportation Association also voiced support for the ICR, but it requested that the survey instrument include questions to identify the type of commercial motor vehicles operated by the respondent. In response, the Agency reviewed and revised three survey questions to better differentiate between various types of passenger-carrying CMVs.



*Public Comments Invited:* You are asked to comment on any aspect of this information collection, including: (1) whether the proposed collection is necessary for FMCSA to perform its functions; (2) the accuracy of the estimated burden; (3) ways for FMCSA to enhance the quality, usefulness, and clarity of the collected information; and (4) ways that the burden could be minimized without reducing the quality of the collected information.

Issued under the authority delegated in 49 CFR 1.87 on: November 20, 2018

G. Kelly Regal,  
Associate Administrator for Office of Research and Information Technology.  
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